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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,034	08/20/2003	In-Duk Song	041993-5238	5327

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EXAMINER

KIM, RICHARD H

ART UNIT PAPER NUMBER

2871

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/644,034	SONG, IN-DUK	
	Examiner	Art Unit	
	Richard H. Kim	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
- 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
- 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 2871

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujioka et al. (US 2002/0163615 A1) in view of Matsumoto et al. (US 2002/0131003 A1) and Kondo et al. (US 5,737,051).

Referring to claims 1, 3-6, 8, 10, 11 and 13, Fujioka et al. discloses a device and method comprising first and second substrates (102, 101) having an array region and a sealant region along a periphery of the array region (103); a sealant in the sealant region attaching the first and second substrate (103); a metallic black matrix formed in a sealant region that extends into the array region of the first substrate (105); a color filter on the metallic black matrix extending into the array region from the sealant region (106-107); and a liquid crystal layer between the first and second substrates (110). However the reference does not disclose an organic layer on the color filter, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant.

Matusmoto et al. discloses a flattening film on the color filter, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant (204). Kondo et al. discloses organic flattening film on the color filter (col. 10, lines 55-65).

Art Unit: 2871

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an organic film on the color filter, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant since the “organic film can be used with ease as the orientation film simultaneously because there is no need to provide an inclination angle. Hence, it becomes possible to simplify the process and to decrease the cost” (col. 10, lines 55-65).

Referring to claims 2 and 9, Fujioka et al. discloses that the black matrix is made of Cr (paragraph 103).

Referring to claims 7 and 12, Fujioka et al. discloses that the second substrate comprises gate lines and data lines arranged vertically and horizontally to define a pixel region; a thin film transistor adjacent each crossing of the gate and data lines; a gate pad and a data pad at an end of the gate and data lines; and a common electrode and a pixel electrode in the pixel region (Fig. 14).

3. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujioka et al. and Kondo et al. in view of Ohgawara et al. (US 6,407,783 B1).

Fujioka et al. and Kondo et al. disclose the device previously recited, but fails to disclose that the black matrix extends over at least one thin film transistor in the array region.

Ohgawara et al. discloses that the black matrix extends over at least one thin film transistor in the array region (21,131,132).

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the black matrix to extend over at least one TFT in the array region since

Art Unit: 2871

one would be motivated to prevent light leakage between pixels. Furthermore, although the figures does not explicitly show the black matrix overlapping at least one TFT, the black matrix does overlap the pixel electrodes (111) and would therefore overlap at least one TFT.

Response to Arguments

4. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2871

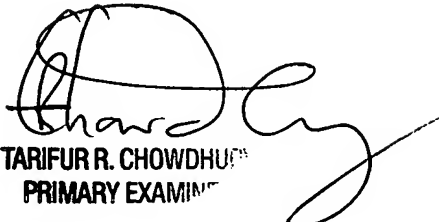
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H. Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard H Kim
Examiner
Art Unit 2871

RHK


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER